

Shetland Cattle: Bull Analysis Report; December 2015

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Note comments on type of bulls (from photos) at end

The first annual report in this series, prepared 15 years ago, concentrated primarily on analyses of the breed structure of Shetland cattle, focusing on preventing the loss of bull lines or cow families and minimising genetic erosion. In later reports more attention was paid to bull selection and this aspect has developed with succeeding reports. Timing of the next breeding season requires that early completion of the 'bull section' is more critical in order to give owners maximum opportunity to select herd sires, and to be aware which bull calves are worth keeping entire. Therefore this report deals exclusively with bull selection.

Bull selection

This assessment deals with bulls used in 2015 to sire calves born in 2016, and bulls that it is intended to use in 2016. I am grateful to all owners who provided details, and especially to Alan Yarker who collated the information and Paddy Zakaria who provided details relating to Scotland and the Islands.

Bull lines

I obtained information on 67 bulls. One or two bulls were duplicated in more than one region, but approximately half were based in Scotland and the Islands, and the others in England and Wales or available through A.I. There were significant regional variations. Herds on the Islands appear to have concentrated their breeding plans on bulls from the Heather Chieftain and Glebe Rasmie lines. The Knocknagael lines (both J4 and Araclett) are scarce. This seems to have created a potential imbalance insofar as it has been associated with the dominance of Collafirth Rasmie and Templeton Boris – a problem noted in several previous reports. On the other hand it also seems to have resulted in a reduction of the influence of Knocknagael Rory, a bull that exerted a very strong impact on breeding lines in unusual historic circumstances.

The influence of Collafirth Rasmie and Templeton Boris has always been controlled more successfully on the mainland of Britain, but conversely the influence of Rory remains relatively high. In contrast to the situation on the Islands, Knocknagael J4 has joined the Heather and Glebe sire lines as a well-represented line, although the Araclett line still is less popular. However, the influence of a founder bull (1981 herd book) is not always reflected by its sire line. For example, Carn Bhren Gustav (Heather line) has only 3.61% Heather Chieftain in its ancestry, and Boquhapple Kelvingrove (J4 line) has only 1.22% Stanemore Odin. Thus it is possible for the influence of Araclett (Knocknagael Tommy) to remain relatively good despite the deficiency in tail male (i.e. direct descent down the bull line).

Inbreeding

The dangers of inbreeding have been rehearsed regularly. Ideally it should be undertaken only with a full understanding of its potential value and negative implications. Its advantages are seen best where it is used in a gradual cumulative process to concentrate the qualities of an outstanding ancestor. Then it is described as linebreeding. The dangers are realised with sudden or extreme inbreeding.

The level of inbreeding in the current crop of Shetland bulls is relatively mild – 5-7% in Islands, 6-9% in Scotland and 5-10% in England and Wales – but examples of extreme inbreeding were noted in the report last year, and one or two occur in the current lists. In Scotland St Trinians Agamemnon is inbred 18.75% with St Trinians Carl as double grandsire, and Knockinnon Arran is linebred to Isleburgh Alf and Hillwell Huxter so that the latter comprises almost 25% of his ancestry. In the Islands Geldron Aert (used in Orkneys) is inbred 18.04%, but the highest example is in England where Lyndthorpe Withnail is inbred 28.94%, mainly as a result of a sire/daughter mating. Such breeding policies may have been planned but they lie outside the normal ‘safe’ range.

Islands

Generation interval

Owners on the Islands have tended to use younger bulls than owners on the Mainland. This rapid turnover of generations has allowed stronger selection, but always with the attendant danger of a currently favoured line becoming too dominant. In 2015 the majority of bulls used were 2 or 3 years of age, and some had a very short generation interval down the last 4 generations of the sire line (e.g. Beadies Comrade 3.25 yrs, Broughskeld Sonny 3.0 yrs, St Trinians Balou 2.25 yrs) but other bulls such as Geldron Brydon, Gillarunna Nocturne and Carn Bhren Halcyon had a much longer generation interval. On average the generation interval of bulls on the Islands is about one year shorter than in selected bulls in England and Wales (excluding bulls where the use of AI made much longer generation intervals).

Sire lines

More than half the bulls trace down the sire line to Collafirth Rasmie, some through Hillwell Arcus and some through Hillwell Gerald. More than a quarter of the bulls trace to Boxmoor Fearless, and the remainder to other lines. The lines tracing to Collafirth Rasmie, and one to Hillwell Huxter, are notable for the high concentration of Rasmie and Templeson Boris in their pedigree. In some cases it reaches alarming levels; Geldron Aert 41%, Broughskeld Sonny 36% and Geldron Brydon 25%, but others also are more than 20% (e.g. Ocrquooy Haldor, Ocrquooy Fagan, Beadies Comrade). It is possible that these levels may result from a deliberate breeding policy in some cases, but they exacerbate the threat of loss of diversity in the breed.

Recommended bulls

The credentials of three bulls used in the Islands in 2015 suggest that particular attention should be paid to any promising sons (i.e. out of good cows) born in 2016.

The first is **St Trinians Balou**. The qualities of this bull, born in 2007, have been described before and this may be his last crop in the Islands as he was on loan in 2015 but 11 cows are confirmed in-calf to him. He belongs to the Knocknagael (Araclett) sire line, which is scarce, and his pedigree shows mild linebreeding to Isleburgh Dexter and Stanemore Odin. He is a big, impressive bull, black brindle in colour.

The second bull is **Gillarunna Nocturne**, born in 2008. Although he traces back to Collafirth Rasmie, it is through a slightly different line, and he “is a good-looking bull with some fine progeny on the ground” (quote from report last year). His pedigree has a good balance of bloodlines. It is good to see high quality bulls such as Nocturne and Balou being kept in service.

The third bull, **Collafirth Tyson**, is a youngster born in 2013. He belongs to the Heather sire line and his sire is linebred to Boxmoor Fearless. His dam was 11 years old when he was born, and longevity is a trait that deserves attention. He has Hjem Lowrie, Troswick Beach and Collafirth Jamie close up in his pedigree. He reduces the level of Knocknagael Rory, and Collafirth Rasmie and Templeson Boris are almost absent from his pedigree. He has a great deal to recommend him, and hopefully there will be a good son or two on the ground in 2016. An even younger bull, **Trondra Einar** (2015), is one to watch for the future. He has a good balance of the four main lines plus some other elements. Boris is absent from his pedigree and the input of Collafirth Rasmie is negligible. His sire is a grandson of Laxness (J4 line), and his dam (11 years old when he was born) comes from a quality Trondra cow family founded by Inga (1982) and reinforced by mating with Murrister bulls (Olympus and Pete) in the next two generations.

Scotland

Sire lines

Moving across the water to the mainland of Scotland we find a relatively modest ancestral contribution from Collafirth Rasmie and Templeson Boris, only exceeding 10% in bulls such as Selbiehill Jimbo and St Trinians Agamemnon. There is a wider selection of bulls, although still dominated by the Heather and Glebe sire lines. It would be prudent to look for bulls of the Knocknagael sire lines (both J4 and Araclett) to redress the balance and maintain diversity. Fortunately two older bulls located in Scotland can assist this process. **St Trinians Balou** (Araclett line) has been mentioned above in the Islands section, and the other is **Trondra Arrow** (J4 line) which also has attracted favourable opinion. He was born 2009, by Collafirth Laxness and out of a cow from the same Trondra Inga family as Einar (see above). He is robust and powerful and is “an exceptionally good-looking bull with a great [placid] temperament” (quote from previous report). There is no Boris in his pedigree, and only very little Collafirth Rasmie. Both Balou and Arrow are highly recommended.

Young bulls

The promising situation with young bulls in Scotland was noted last year, and some of these have continued in service (e.g. St Trinians Lucky Seven, a great-grandson of Curan, and Gillarunna Ollie, a 2010 son of Nocturne), but in addition two very good 2014 bulls that worked in 2015 will have calves on the ground in 2016. Both bear evidence of the value of Balou. **Carn Bhren Inuus** (Araclett line) is a son of Balou and has inherited his brown/brindle colour. He has an impressive pedigree and his dam is grand-daughter of Troswick Beach. **Carn Bhren Irish** (J4 line) is equally impressive and is a red bull by Ustaness Petroni (son of Laxness) out of Drumlough Isobel (daughter of Balou). He worked on the Isle of Skye.

England/Wales

The reduced influence of Collafirth Rasmie and Templeson Boris, noted in Scotland, is repeated in England and Wales where it is unusual for their combined contribution to exceed 10%, with only Greenoak Neo among the listed bulls reaching this limit. However, the dominance of Glebe and Heather sire lines seen in Scotland does not continue into England and Wales, where the Knocknagael lines are more popular.

Recommended bulls

Twenty-six bulls have been brought to my notice and several that worked in 2015 or will be working in 2016 are worthy of closer attention. Previous mention has been made of **Aidlew Angus**, a son of an A.I. bull, Garths Adonis. He no longer is available although he was used in 2015 giving a last chance of progeny in 2016. He belonged to the Araclett sire line and his dam was a daughter of Stanemore Odin. Two of his well-bred full-sib sons in the Midlands, **Randolph Maximus** (2014) and **Randolph Douglas** (2013), are working to reinforce the Araclett line. Their dam's pedigree is predominantly Randolph based on St Trinians Rory. Another bull in the Midlands worth noting is **Lincwold Lowden** (2011). He is from the Glebe line and both sire (Jacob) and dam (Grace) carry the Lincwold prefix. He has light linebreeding to Tivis Hill Keen and offers a good mix of lines.

Particular mention also was made last year of **Blazefield Rufus** (2012), a recommended red-and-white bull, which was purchased following the report and continues as a herd sire in Cumbria. His sire is a grandson of St Trinians Mansie (Knocknagael J4 line) and his dam is a daughter of Waterloo Charlie to whom he is linebred. He reduces the level of Knocknagael Rory. He has left two sons in the Midlands, namely **Wharncliffe Kyle** (2014) and **Wharncliffe Luke** (2015), both of which have inherited his red-and-white colour. Kyle is out of Wharncliffe Grace with only a very slight touch of Collafirth Rasmie and Templeson Boris through her grand-dam. Luke is out of Wharncliffe Jannie which has good mix of lines.

Four other bulls have pedigrees which possess interesting mixes of lines with the ability to maintain genetic diversity in the breed. Two are by St Trinians Lawrie which is linebred to Knocknagael Duncan (Araclett line but strong input of Glebe genetics). **Pepperpot Hugh** (2013) is located in the South of England and his dam is mainly a blend of Stanemore Odin and Heather Chieftain, thereby encompassing the main elements of Shetland breeding in his pedigree. The other son of Lawrie is **Cwrdu Morgan** (2012) located in Wales and linebred to Waterloo Charlie. His dam is a blend of various lines. The two final bulls in this shortlist are **Windgates Gingernut** (2015) and **Blazefield Beano** (2013). Gingernut is based in Cumbria. He is a red-and-white son of Clunes Finlay and a daughter of St Trinians Red Hot Pepper; which gives him a wide spread of lines. Beano in South-East England also has a good mix of bloodlines. His sire is Wharncliffe Hugo and his dam, Baylham Ingrid, is a daughter of Waterloo Charlie.

A.I. bulls

The availability of semen through A.I. now is limited to 5 donor bulls, although semen from a sixth bull (Galfrid Ashley) was used in 2015 before it became unavailable. **Galfrid Ashley** (1988) belonged to the Araclett line but his pedigree includes a good spread of lines, and he would reduce the level of Knocknagael Rory. It would be a final opportunity in 2016 to keep a son. The remaining animals in the A.I. stud include two bulls with established reputations, namely **St Trinians Mansie** (1994) and **Stanemore Odin** (1975), while **Garths Adonis** (1980) is predominantly Araclett (Araclett Saturn comprises almost half his ancestry) with a little Glebe input.

Summary

The requirements for bulls vary in the different regions of Britain, not only because of issues of genetic health of the breed, but also because breeders work in contrasting ways with different priorities. The bulls highlighted in this report are concerned primarily with genetic

factors which underlie sustainable breeding policies, but hopefully they also give owners sufficient choice to exercise their particular brand of breeding Shetland cattle.

Twenty-one bulls have been highlighted and recommended as herd sires with the potential to produce superior progeny, but other bulls are also available and may suit a particular circumstance or breeding policy. In all cases we wish for a successful calving season in 2016 to carry the breed forward to the next generation.

Bulls

Hengae Fearsome (3 yo): almost black; thickset

Hollins Gustav (4.5 yo): short, big head

Randolph Fergus: short-legged, deep body

St Trinians Balou: big, small head

Collafirth Tyson: black and white

Collafirth Innes: almost black, smooth fleshed

Geldron Aert: cow-headed, light behind